

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An optical system for a projector, comprising:
a light source;
a projection lens for externally projecting light incident from the light source;
an image-forming panel disposed between the light source and the projection lens, and
for modulating the light incident at a certain incident angle from the light source, forming an
image, and reflecting the formed image onto the projection lens; and
a light integrator disposed between the light source and the image-forming panel, wherein
the light integrator transforms a cross-sectional face of the light, incident from the light source
and radiated onto the image-forming panel at a certain incident angle, into a shape corresponding
to the image-forming panel plane so that the cross-sectional face of the light has the same margin
width around edges of the image-forming panel plane;
wherein the light integrator reduces the shape of the cross-sectional face of the light,
which is incident from the light source and which is radiated onto the image-forming panel at a
certain incident angle₁ in proportion to $\cos \theta$ with respect to the original shape of the cross-
sectional face of the light in the direction of a keystone vector formed on the image-forming
panel₁;

~~when~~wherein the incident angle of the light incident onto the image-forming panel is θ ;
wherein the light integrator comprises a parallelogram shaped cross-sectional face,
wherein a width of the cross-sectional face in the direction of the keystone vector is configured
to be reduced as a result of multiplying an original width of the cross-sectional face by a value of
 $\cos \theta$.

2. (canceled)

3. (previously presented): The optical system as claimed in claim 1, wherein the light integrator comprises a light tunnel for transforming the cross-sectional face of the light collected from the light source into a predefined desired shape.

4. (original): The optical system as claimed in claim 1, wherein the image-forming panel is a digital mirror device panel having reflector arrays thereon.

5. (previously presented): The optical system as claimed in claim 4, wherein the digital mirror device panel is arranged so that the direction of a keystone vector formed on the

digital mirror device panel corresponds to a direction perpendicular to the pivotal axes of the reflectors.

6. (original): A projection method for a projector having an image-forming panel forming images, comprising:

emitting and collecting light;

receiving the collected light, transforming a cross-sectional face of the incident light into a predefined desired shape, and emitting the light onto the image-forming panel, wherein the cross-sectional face of the light is transformed by reduction in proportion to $\cos \theta$ with respect to the direction of the keystone vector formed on the image-forming panel, when the incident angle of the light incident onto the image-forming panel is θ ;

radiating and modulating the emitted light, the cross-sectional face of which is transformed, onto the image-forming panel at the incident angle of θ ; and

magnifying and projecting the light forming the image.

7. (original): The optical system as claimed in claim 1, wherein the light integrator comprises a pipe for transforming the cross-sectional face of the light collected from the light source into a predefined desired shape.

8. (original): The optical system as claimed in claim 1, wherein the light integrator comprises a rod for transforming the cross-sectional face of the light collected from the light source into a predefined desired shape.